MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

MID 3343 - DESIGN SPECIFICATION AND PROTOTYPING

(All sections / Groups)

12 OCTOBER 2017
9.00 A.M. – 11.00 A.M.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 3 pages with 5 Questions only.
2. **Answer FOUR (4) only** from all FIVE (5) questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

1 (A) Describe the basic process of Rotational Molding (support with a drawing). Include in your answer with three (3) product samples made by this method.

(13 marks)

(B) Suggest which process suitable to manufacture rubber based floor mat product. Describe the process with the support of a diagram drawing.

(12 marks)

(Total 25 marks)

2. (A) Briefly, explain the followings:

i) Two (2) characters of product from the Plastic Injection Blow Molding process.

(9 marks)

ii) Three (3) advantages of plastic Stretch Blow Molding.

(9 marks)

iii) Parison

(2 marks)

(B) Explain two (2) characters of Plastic Vacuum Forming process.

(5 marks)

(Total 25 marks)

3(A) Describe three (3) major differences between Ferrous and Non-Ferrous metal by giving one (1) example for each category.

(13 marks)

(B) Identify two (2) basic requirements for metal sheet bending process by giving three (3) examples of product suitable to use this process.

(12 marks)

(Total 25 marks)

Continued...

4(A) Briefly identify three (3) advantages of metal Die Casting process and describe any three (3) types of metal Chip Forming cutting process.

(13 marks)

(B) Describe the form character from metal Deep Drawing process support by drawing the diagram of the process.

(12 marks)

(Total 25 marks)

5(A) (i) Identify four (3) types of metal rolling process and give two (2) criteria of product with Closed Die Forging process.

(8 marks)

(ii) Identify three (3) criteria of Product Specification from Design to Engineering.

(7 marks)

(B) Give three (3) types of metal Sheet Cutting process with describing the differences from each.

(10 marks)

(Total 25 marks)

End of Page.